Federal Government Markets

John Frank
Vice President
INPUT

© 1989 by INPUT. Reproduction Prohibited.

Environmental Issues for Information Services

- Transition from data orientation to information orientation
- Changing acquisition methods
- Implications of standards
- Shakeout of markets
- Price versus technology

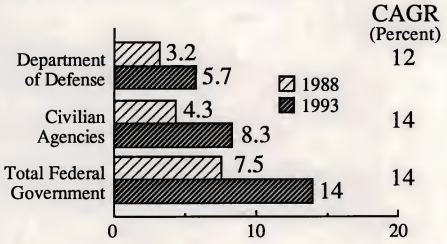
INPUT

NOTES:

MSEM-JF-2

© 1989 by INPUT. Reproduction Prohibited.

DoD versus Civilian Sectors, 1988-1993



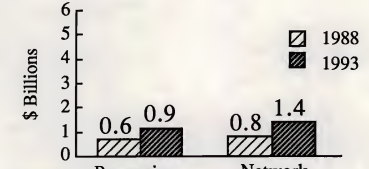
INPUT

NOTES:

MSEM-JF-3

© 1989 by INPUT. Reproduction Prohibited.

Federal Government Information Services Markets by Delivery Mode, 1988-1993



CAGR 1988-1993 (Percent)	Processing Services	Network Services
	7	10

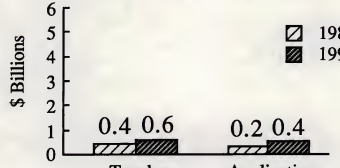
INPUT

NOTES:

MSEM-JF-4a

© 1989 by INPUT. Reproduction Prohibited.

Federal Government Information Services Markets by Delivery Mode, 1988-1993



CAGR 1988-1993 (Percent)	7	14

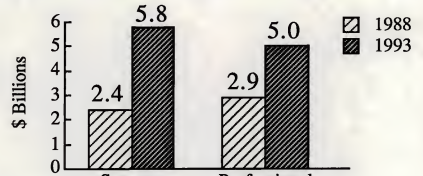
INPUT

NOTES:

MSEM-JF-4b

© 1989 by INPUT. Reproduction Prohibited.

Federal Government Information Services Markets by Delivery Mode, 1988-1993



CAGR 1988-1993 (Percent)	Systems Integration	Professional Services
	19	11

INPUT

NOTES:

MSEM-JF-4c

© 1989 by INPUT. Reproduction Prohibited.

New Processing Applications

Applications	Ranked by Level of Demand
Data base with network	1
Public access data bases	2
Specialized software	3
Modeling	4

INPUT

NOTES:

MSEM-JF-5a

© 1989 by INPUT. Reproduction Prohibited.

New Processing Applications

Applications	Ranked by Level of Demand
IDMS	5
Administrative	6
Architectural Design	7
Resource Utilization	8

INPUT

NOTES:

MSEM-JF-5b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Processing Services Vendors

Company	Rank*
CSC	1
Boeing	2
CDC	3
McDonnell Douglas/ Tymshare	4

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-6a

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Processing Services Vendors

Company	Rank*
MMDS	5
GE Information Systems	6
AMS	7

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-6b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Processing Services Vendors

Company	Rank*
Comnet	8
DRI	9
ITT Dialcom	10

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-6c

© 1989 by INPUT. Reproduction Prohibited.

Network Applications and Technologies

Application/Technology	Rank*
Information Management	1
Telecommunications	2
Financial and Administrative	3

* Rank based on frequency of mention by industry respondents.

INPUT

NOTES:

MSEM-JF-7a

© 1989 by INPUT. Reproduction Prohibited.

Network Applications and Technologies

Application/Technology	Rank*
Local-Area Networks	4
Secure Networks	5
Electronic Services	6

* Rank based on frequency of mention by industry respondents.

INPUT

NOTES:

MSEM-JF-7b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Network Services Vendors

Company	Rank*
AT&T	1
Boeing	2
Contel	3

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-8a

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Network Services Vendors

Company	Rank*
Bell Atlantic	4
General Electric	5
U.S. Transmission Systems	6

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-8b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Network Services Vendors

Company	Rank*
U.S. West	7
GTE	8
Foreign Carriers Communications	9
Southwestern Bell	10

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-8c

© 1989 by INPUT. Reproduction Prohibited.

Federal Turnkey System Initiatives by Percent Annual Funding

Type	Funding (%)
Data collection	31
CAD/CAE (multiple applications)	12
CIM	11
Graphics	9
CAE	7

INPUT

NOTES:

MSEM-JF-9a

© 1989 by INPUT. Reproduction Prohibited.

Federal Turnkey System Initiatives by Percent Annual Funding

Type	Funding (Percent)
Records Management	7
CAD	6
Personnel	5
Library	1
Publishing	1

INPUT

NOTES:

MSEM-JF-9b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Turnkey Systems Vendors

Company	Rank*
Federal Data Corporation	1
C3, Inc.	2
Computervision	3
Prime	4
Intergraph, Inc.	5

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-10a

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Turnkey Systems Vendors

Company	Rank*
Computer Consoles	6
Gould	7
Harris	8
Tektronix	9
Triad	10

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-10b

© 1989 by INPUT. Reproduction Prohibited.

Federal Applications Software Requirements

- Voice-data integration
- Improved end-user support applications
- Increased software product applications

INPUT

NOTES:

MSEM-JF-11a

© 1989 by INPUT. Reproduction Prohibited.

Federal Applications Software Requirements

- Relational data bases
- Departmental information processing
- Decision support systems

INPUT

NOTES:

MSEM-JF-11b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Applications Software Vendors

Company	Rank*
Computer Associates	1
Sterling Software	2
Computer Corporation of America	3

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-12a

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Applications Software Vendors

Company	Rank*
Universal Energy Systems	4
Government Technology Services	5
Q S Inc.	6

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-12b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Applications Software Vendors

Company	Rank*
Integrated Software Systems	7
Macheal-Schwendler Corp.	8
Candle Corporation	9
Computer Data Systems, Inc.	10

* Based on 1988 annual revenues

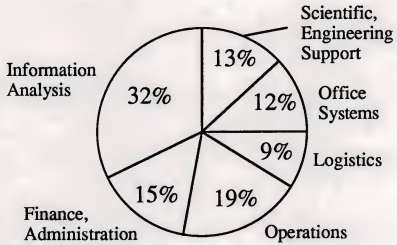
INPUT

NOTES:

MSEM-JF-12c

© 1989 by INPUT. Reproduction Prohibited.

Federal Systems Integration Applications



INPUT

NOTES:

MSEM-JF-13

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Systems Integration Vendors

Company	Rank*
IBM	1
Electronic Data Systems	2
Computer Sciences Corporation	3

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-14a

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Systems Integration Vendors

Company	Rank*
SAIC	4
Grumman Data Services	5
Unisys	6

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-14b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Systems Integration Vendors

Company	Rank*
Boeing Computer Services	7
PRC	8
CDC	9
Andersen Consulting	10

* Based on 1988 annual revenues

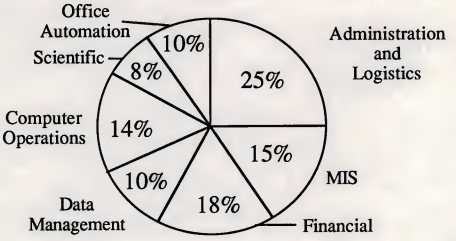
INPUT

NOTES:

MSEM-JF-14c

© 1989 by INPUT. Reproduction Prohibited.

Federal Professional Services
Civil



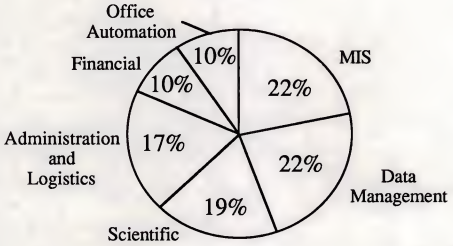
INPUT

NOTES:

MSEM-JF-15

© 1989 by INPUT. Reproduction Prohibited.

Federal Professional Services
DoD



INPUT

NOTES:

MSEM-JF-16

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Professional Services Vendors

Company	Rank*
Computer Sciences Corporation	1
Unisys	2
General Motors (Hughes)	3

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-17a

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Professional Services Vendors

Company	Rank*
IBM	4
Martin Marietta	5
Honeywell	6
Boeing	7

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-17b

© 1989 by INPUT. Reproduction Prohibited.

Ranking of Top Federal Professional Services Vendors

Company	Rank*
Lockheed (LEMSCO)	8
Planning Research Corporation	9
General Motors (EDS)	10

* Based on 1988 annual revenues

INPUT

NOTES:

MSEM-JF-17c

© 1989 by INPUT. Reproduction Prohibited.

Federal Government Sector New Applications

- EDI—networks and services
- Computer-aided acquisition and logistic systems (CALS)
- Automated tax processing

INPUT

NOTES:

MSEM-JF-18a

© 1989 by INPUT. Reproduction Prohibited.

Federal Government Sector New Applications

- Standardized financial, payroll, and personnel systems
- AI applied to software development and simulation modeling

INPUT

NOTES:

MSEM-JF-18b

© 1989 by INPUT. Reproduction Prohibited.

Federal Government Sector Impact of Technology

- New optical memory technology
- Open system architecture
- Artificial intelligence/expert systems
- Supercomputer improvements
- Digital voice systems

INPUT

NOTES:

MSEM-JF-19

© 1989 by INPUT. Reproduction Prohibited.

Recommended Federal Market Strategies

- Emphasize fixed-price bidding
- Maximize automated tool use
- Penetrate agencies vertically
- Stress customer benefits
- Show specialized expertise

INPUT

NOTES:

MSEM-JF-20

© 1989 by INPUT. Reproduction Prohibited.

John E. Frank
Vice President, Federal Programs
INPUT

John E. Frank is a Vice President with INPUT, responsible for the company's Federal Information Systems and Services Program research. With special emphasis on communications and U.S. Federal Government markets, Mr. Frank's 39-year career encompasses a wide range of senior management, marketing, engineering, technology, and business forecasting positions. Most recently he was Director of Planning and Administration for Computer Sciences Corporation's System Group, with responsibility for research and preparation of mid- and long-range market plans and business forecasts.

A registered and professional engineer, Mr. Frank holds a B.S. degree in Industrial Engineering and Management from Fairleigh Dickinson University and has done advanced studies at George Washington University and the University of Michigan.

RCV BY:XEROX TELECOPIER 7010 ; 4- 3-89 1:43PM ; 4159603966→ 7038476872;# 1
SENT BY:INPUT (MTN VIEW) ; 4- 3-89 10:48AM ;

INPUT

1280 Villa Street, Mountain View, CA 94041-1194 (415) 961-3300
Telex 171407 FAX (415) 961-3966

FAX TRANSMITTAL FORM

DESTINATION: ~~Vienna, Va~~ Mountain View

FAX NUMBER:

ATTENTION: John Frank.

Telephone Number/Location

NUMBER OF PAGES: 1 OF 7

Confidential Yes___ No✓

Urgent Yes✓ No___

DESCRIPTION:

FROM: Hunter/Andres.

DATE: 4/3/89.

INPUT
Project Charge Code:

FILE: ___CHRON ___CONTACT ___OTHER

Specify:

RCV BY:XEROX TELECOPIER 7010 ; 4- 3-89 11:50AM ; 7038476872→ 4159603966;# 1
SENT BY:INPUT WASHINGTON DC ; 4- 3-89 2:52PM ; 7038476872→ 4159603966;# 1

Federal Turnkey System Initiatives by Percent Annual Funding

Type	Funding (%)
CAD	6
CAE	7
CAD/CAE (multiple applications)	12

INPUT

NOTES:

Originally arranged alphabetically

Author - Not ranked in order of %?

Rearrange by %

MSEM-JP-9a

RCV BY:XEROX TELECOPIER 7010 ; 4- 3-89 11:50AM ; 7038476872→ 4159603966;# 2
SENT BY:INPUT WASHINGTON DC ; 4- 3-89 2:53PM ; 7038476872→ 4159603966;# 2

Federal Turnkey System Initiatives by Percent Annual Funding

Type	Funding (Percent)
CIM	11
Data collection	31
Graphics	9

INPUT

NOTES:

Please add remainder - backup included again

Within 4 more types & %s in backup, but not shown here

MSBM-JF-9b

FEDERAL TURNKEY SYSTEM INITIATIVES
BY PERCENT ANNUAL FUNDING

TYPE	FUNDING PERCENT	TYPE	FUNDING PERCENT
CAD	6	Graphics	9
CAE	7	Library	1
CAD/CAE (Multiple Applications)	12	Personnel	5
CIM	11	Publishing	1
Data Collection	31	Records Management	7

MSEM - JF- 9

RCV BY:XEROX TELECOPIER 7010 ; 4- 3-89 11:52AM ; 7038476872→ 4159602966;# 4
SENT BY:INPUT WASHINGTON DC ; 4- 3-89 2:54PM ; 7038476872→ 4159602966;# 4

Ranking of Top Federal Turnkey Systems Vendors

Company	Rank*
Federal Data Corporation	1
C3, Inc.	2
Computervision	3
Prime	4
Intergraph, Inc.	5

* Based on 1987 annual revenues

NOTES:

MSEM-JF-10a

RCV BY:XEROX TELECOPIER 7010 ; 4- 3-89 11:52AM ; 7038476872→ 4159603966;# 5
SENT BY:INPUT WASHINGTON DC ; 4- 3-89 2:54PM ; 7038476872→ 4159603966;# 5

Ranking of Top Federal Professional Services Vendors

Company	Rank*
Computer Sciences Corporation	1
Unisys	2
General Motors (Hughes)	3

* Based on 1987 annual revenues

INPUT ← data 1988?

NOTES:

M3EM-JF-17a

© 1989 by INPUT. Reproduction Prohibited.

SENT BY:INPUT WASHINGTON DC ; 4- 3-89 2:55PM ; 7035476872→ 4159602966:# 7
RCV BY:XEROX TELECOPIER 7010 ; 4- 3-89 11:53AM ; 7035476872→ 4159602966:# 7

Ranking of Top Federal Applications Software Vendors

Company	Rank*
Computer Associates	1
Sterling Software	2
Computer Corporation of America	3

* Based on 1988 annual revenues

INPUT

NOTES:

MSRM.FP-12a

© 1989 by INPUT. Reproduction Prohibited.

SENT BY:INPUT WASHINGTON DC ; 4- 3-89 2:55PM ; 7038476872# 5
ROU BY:XEROX TELECOPIER 7010 ; 4- 3-89 11:53AM ; 7038476872# 6

INPUT, Inc.
8298 C, Old Courthouse Road, Vienna, VA 22180 (703) 847-6870
FAX (703)847-6872

FAX TRANSMITTAL FORM

DESTINATION: Mountain View

FAX NUMBER: -

ATTENTION: SHIELA COLLINS

Telephone Number/Location

NUMBER OF PAGES: 1 OF 21

CONFIDENTIAL CORRESPONDENCE YES NO ✓

URGENT YES ✓ NO

DESCRIPTION: ALL OF THE CHARTS FOR THE MAPS SEMINAR 4-13/14 — THIS is Day 1 Session 8 Code MSEM-(JF)

(Most of Slides from 1988 MAVR-FG)

****

FROM: JOHN FRANK

DATE: 3-28-89

author was seen HC and faxed CX's. CX's made and printed.

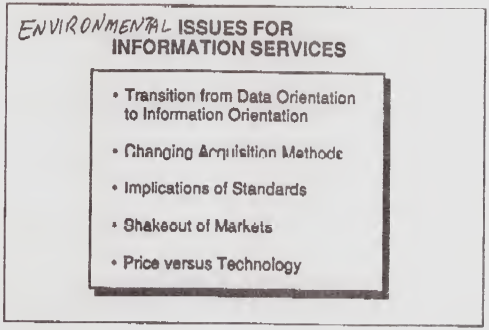
FEDERAL GOVERNMENT MARKETS

JOHN FRANK
VICE PRESIDENT
INPUT

MSEM-JF-1

(MAPS SEMINAR
4-18-89)

EXHIBIT I-3



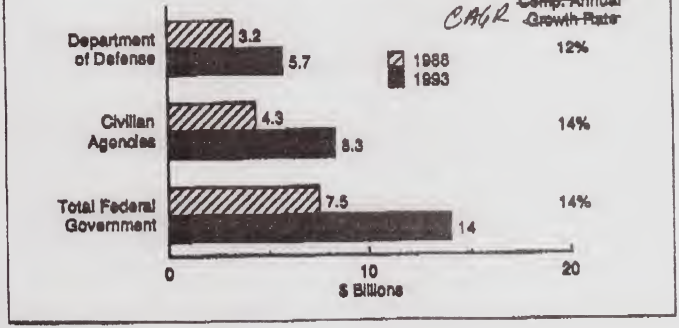
For several years the government has been transitioning from merely processing data to becoming more information oriented. The federal agencies need to be able to readily access, exchange, and store the enormous collection of information that is essential to their operations and to the public. Another evolutionary process in the government is its method of acquiring information systems and services. The emphasis on cost and risk containment has caused a migration to fixed-price contracts and closer scrutiny of procurements.

© 1988 by Input. All Rights Reserved.

MSEM JF-2

EXHIBIT II-1

~~FEDERAL GOVERNMENT SECTOR MARKET FORECAST~~
DoD VERSUS CIVILIAN SECTORS, 1988-1993
~~1988-1993 (CALENDAR YEAR)~~



Please shorten title to 1 or 2 lines, Otherwise chart will not fit on one slide

oh

III-FG-8

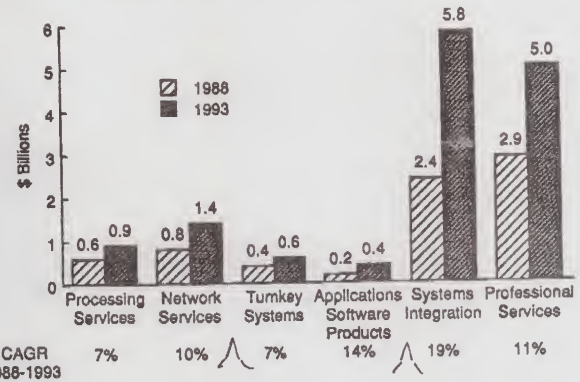
© 1989 by INPUT, Reproduction Prohibited.

MAVR-FG

MSEMVF-3

EXHIBIT II-2

FEDERAL GOVERNMENT INFORMATION SERVICES MARKETS BY DELIVERY MODE, 1988-1993



(If this must be cut up to fit — cut at ^'s)

© 1989 by INPUT. Reproduction Prohibited.

MSEM-JR 4

NEW PROCESSING APPLICATIONS

APPLICATIONS	RANKED BY LEVEL OF DEMAND
Data Base with Network	1
Public Access Data Bases	2
~~Mini-Applications~~	10
Specialized Software	3
Modeling	4
IDMS	5
Administrative	6
Architectural Design	7
Resource Utilization	8
~~Military/Basics/Education~~	

MSEM-JF-5

EXHIBIT III-3

RANKING OF TOP FEDERAL PROCESSING SERVICES VENDORS

Company	Rank*
CSC	1
Boeing	2
CDC	3
McDonnell Douglas/Tymshare	4
MMDS	5
GE Information Systems	6
AMS	7
Comnet	8
DRI	9
ITT Dialcom	10

* Based on 1987 annual revenues

MSEM-JF-6

EXHIBIT III-1

NETWORK [redacted] APPLICATIONS AND TECHNOLOGIES

Application/Technology	Rank*
Information Management	1
Telecommunications	2
Financial and Administrative	3
Local-Area Networks	4
Secure Networks	5
Electronic Services	6

* Rank based on frequency of mention by industry respondents.

MSEM-JF-7

EXHIBIT III-4

RANKING OF TOP FEDERAL NETWORK SERVICES VENDORS

Company	Rank*
AT&T	1
Boeing	2
Contel	3
Bell Atlantic	4
General Electric	5
U.S. Transmission Systems	6
U.S. West	7
GTE	8
Foreign Carriers Communications	9
Southwestern Bell	10

* Based on 1987 revenues

INPUT expects AT&T to continue to dominate the network services market. However, the other shares are expected to change following the award of FTS 2000. The winners in this contract will provide the media and support for both network services and electronic information services.

© 1988 by INPUT. Reproduction Prohibited.

MSEM - JF - 8

FEDERAL **TURNKEY SYSTEM INITIATIVES**
BY PERCENT ANNUAL FUNDING

TYPE	FUNDING PERCENT	TYPE	FUNDING PERCENT
CAD	6	Graphics	9
CAE	7	Library	1
CAD/CAE (Multiple Applications)	12	Personnel	45
CIM	11	Publishing	1
Data Collection	31	Records Management	7

EXHIBIT III-5

RANKING OF TOP FEDERAL TURNKEY SYSTEMS VENDORS

Company	Rank*
Federal Data Corporation	1
C3, Inc.	2
Computervision	3
Prime	4
Intergraph, Inc.	5
Computer Consoles	6
Gould	7
Harris	8
Tektronix	9
Triad	10

* Based on 1987 revenues

© 1988 by INPUT. Reproduction Prohibited.

MSEM-JF- 10

EXHIBIT IV-7

FEDERAL APPLICATIONS SOFTWARE REQUIREMENTS

- Voice-Data Integration
- Improved End-User Support Applications
- Increased Software Product Applications
- Relational Data Bases
- Departmental Information Processing
- ~~Transparent Backup~~
- Decision Support Systems

Improved, user-friendly data processing resources are key objectives of most current systems projects. A primary objective is improved data base availability, with associated protective measures in both hardware and software that respond to end-user needs. Vendors to the federal market are becoming more aware of the government user's need to readily access data and distribute information among agency sites.

GAO, GSA, and NBS are pressing agencies to employ off-the-shelf or readily adaptable software products for a wide range of government applications that closely resemble commercial processes. Objectives include:

MSEM-JF-11

© 1988 by INPUT. Reproduction Prohibited.

EXHIBIT III-6

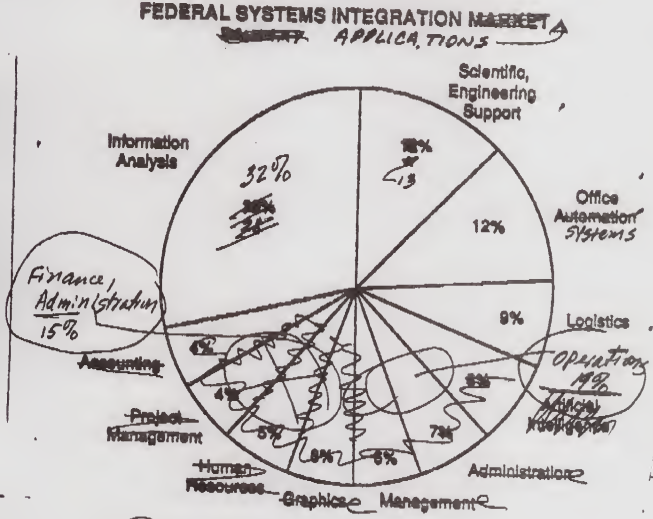
RANKING OF TOP FEDERAL APPLICATIONS SOFTWARE VENDORS

Company	Rank*
Computer Associates	1
Sterling Software	2
Computer Corporation of America	3
Universal Energy Systems	4
Government Technology Services	5
Q S Inc.	6
Integrated Software Systems	7
Macheal-Schwendler Corp.	8
Candle Corporation	9
Computer Data Systems, Inc.	10

* Based on 1987 revenues

© 1988 by INPUT. Reproduction Prohibited.

MSCM-JF- 12



Simplify, too many categories

MSEM-JF-13

EXHIBIT III-8

RANKING OF TOP FEDERAL SYSTEMS INTEGRATION VENDORS

Company	Rank*
Electronic Data Systems	2 ✓
Computer Sciences Corporation	3 ✓
IBM	1 ✓
Unisys	16
PRC	8
SAIC	4
~~MMDS~~	~~6~~
Grumman Data Services	5
~~Federal Data Corporation~~	~~7~~
CDC	9
~~TRW~~	~~6~~
Anderson Consulting	10
~~Digital Equipment Corporation~~	~~8~~
Boeing Computer Services	7

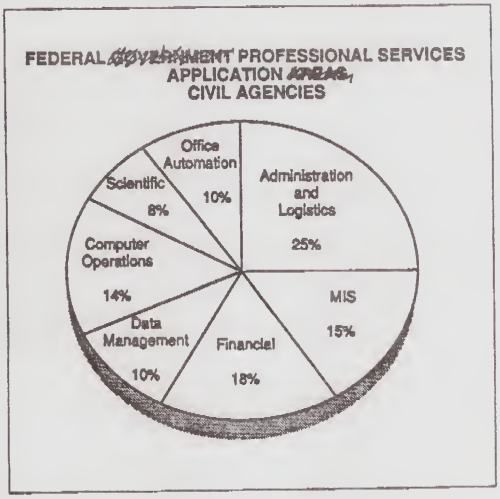
* Based on 1987 revenues

6

MSEM-JF-14

© 1988 by INPUT. Reproduction Prohibited.

IV -



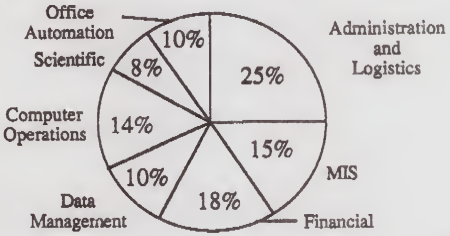
© 1988 by INPUT. Reproduction Prohibited.

GFPS

MSEM-JF-15

Federal PROFESSIONAL SERVICES - CIVIL 2

~~Federal Government Professional Services Application Areas—Civil Agencies~~



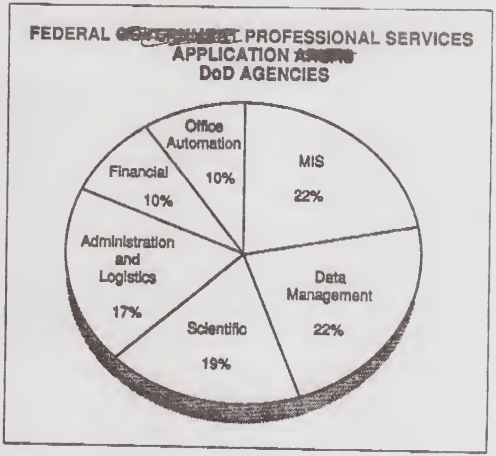
INPUT

NOTES:

Please shorten title ✓

MSEM-JF-15

© 1989 by INPUT. Reproduction Prohibited.

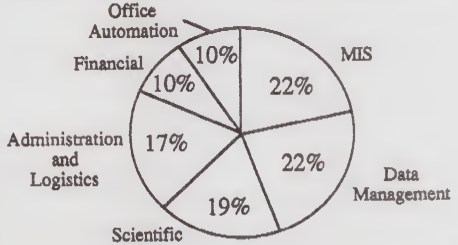

FEDERAL PROFESSIONAL SERVICES
APPLICATION
DoD AGENCIES
Office Automation 10%
MIS 22%
Financial 10%
Administration and Logistics 17%
Data Management 22%
Scientific 19%

MSEM-JF-16

Federal Professional Services - DoD

2

~~Federal Government Professional Services Application Areas—DoD Agencies~~



INPUT

NOTES:

Please Shorten title

MSEM-JF-16

© 1989 by INPUT. Reproduction Prohibited.

EXHIBIT III-7

RANKING OF TOP FEDERAL PROFESSIONAL SERVICES VENDORS

Company	Rank*
Computer Sciences Corporation	1
Unisys	2
General Motors (Hughes)	3
IBM	4
Martin Marietta	5
Honeywell	6
Boeing	7
Lockheed (LEMSCO)	8
Planning Research Corporation	9
General Motors (EDS)	10

* Based on 1987 revenues

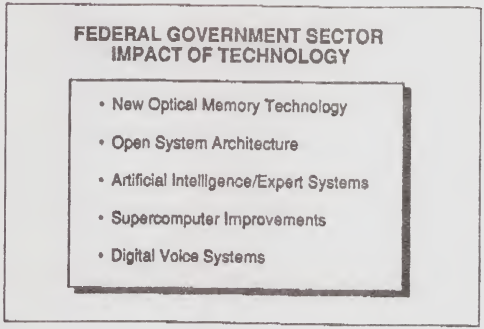
EXHIBIT IV-8

FEDERAL GOVERNMENT SECTOR NEW APPLICATIONS

- EDI - Networks and Services
- Computer-Aided Acquisition and Logistic Systems (CALS)
- Automated Tax Processing
- Standardized Financial, Payroll, and Personnel Systems
- AI Applied to Software Development and Simulation Modeling

MSEM-JF-18

EXHIBIT IV-10



© 1989 by INPUT. Reproduction Prohibited.

MSEM-JF-19

RECOMMENDED FEDERAL MARKET STRATEGIES

- Emphasize Fixed-Price Bidding
- Maximize Automated Tool Use
- Penetrate Agencies Vertically
- Stress Customer Benefits
- Show Specialized Expertise

MSEM-JF-20

(LAST CHART)